

### REMARKS

The claims in this application are claims 2-6.

Claims 2-6 stand rejected under 35 USC § 103 as being unpatentable over the combination of Green, Sullivan and O'Lenick. This rejection is respectfully traversed.

The references have been discussed at length in earlier papers, including a decision of the PTO BPAI. It has been generally agreed that O'Lenick represents the closest prior art to the pending claims. O'Lenick discloses a two-stage process for production of  $\beta$ -alkoxy amine by reaction of an  $\alpha,\beta$ -saturated nitrile with an alcohol or glycol followed by hydrogenation of the resulting  $\beta$ -alkoxy nitrile.

The critical difference between the O'Lenick process and the here claimed process is that in the reference the first stage is catalyzed by inorganic bases or quaternary ammonium salts, and in the here claimed process the catalyst is a recited class of diazabicycloalkenes.

Applicants found that by using the specified catalysts it was not necessary to remove the catalyst prior to the hydrogenation step to obtain high yields. There is ample authority of record to indicate that the base catalyst removal was required in the prior art.

O'Lenick, however, does not disclose a step of removing the alkaline catalyst. However, O'Lenick does require, for good yields, the addition of a stable free radical inhibitor. The instant claims expressly recite "without prior removal or neutralization of said basic catalyst" prior to the hydrogenation step. And the first step is recited "which

consists” of using the recited catalyst. Thus, the claims should not be interpreted as being able to include the stable free radical compounds of O’Lenick.

In view of the evidence of unobvious results already of record and presented additionally here in the declaration of Dr. F. Haese, it is considered that any evidence of obviousness found in the references is adequately outweighed by the evidence of unobviousness. *In re Piasecki*, 745 F.2d 1468, 1472-73, 223 USPQ 785, 788 (Fed. Cir. 1984). Even if one were somehow to interpret the present claims as permitting the use of a free radical inhibitor, an incorrect interpretation in view of MPEP § 2111.03, the evidence that applicants’ process does not require such a material should still be considered proof of unobviousness. Every working example of O’Lenick carried out without the free radical inhibitor produces reduced yields. There is no suggestion that with a different catalyst in the first step, i.e., the ones recited in applicants’ claims, one could obtain high yields without any free radical inhibitor.

In the original specification, working examples 5, 7 and 8, when compared to comparative example 5, it was demonstrated that when the catalyst of the instant claims is used with no intervening removal of catalyst and no addition of free radical inhibitors, a much higher yield is obtained than when a prior art catalyst is used under otherwise identical conditions. The examiner has considered that the evidence discussed above was insufficient and has required a “side-by-side comparison with the reference.” It is not exactly understood what the examiner intends by “side-by-side.” Initially it should be noted that indirect showings of unobvious result have been

approved in precedential decisions. *In re Graselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983); *In re Blondel*, 499 F.2d 1311, 1317, 182 USPQ 294, 298 (CCPA 1974); and *In re Fouche*, 439 F.2d 1237, 169 USPQ 429 (CCPA 1971). Those authorities are mentioned only as a precautionary measure since it is applicants' position that the comparison of the examples in the Haese declaration comprise an essentially direct comparison with examples 1 and 10 of O'Lenick, the examples indicated by the examiner as being the closest prior art.

Example 1 of O'Lenick illustrates the reaction of the polyethylene glycol with acrylonitrile in the absence of a free radical inhibitor followed by hydrogenation. The efficiency of reaction was 58.2%. Examples 9 and 10 of the declaration illustrate the reaction of a polyethylene glycol of the same molecular weight with acrylonitrile followed by hydrogenation to give an efficiency of reaction of 93% (Example 9) and 100% (Example 10). The only significant difference was the use of applicants' catalysts in the declaration examples and potassium hydroxide in Example 1 of the reference in the addition step. Example 10 of the reference was similar to Example 1 except that stearyl alcohol was used. The efficiency of reaction was 68.2%. Examples 11 and 12 in the declaration illustrate the use of stearyl alcohol. Again, the only significant difference was the catalyst and the yields in the declaration were 78% (Example 11) and 83% (Example 12).

Applicants remain of the opinion that the combined teachings of the references do not adequately make out a case of *prima facie* obviousness. However, to whatever

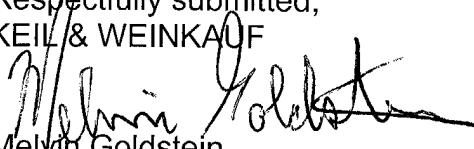
extent one might consider that they do, the combined evidence in the specification and the Haese declaration are more than adequate to outweigh any evidence of obviousness found in the references. That is to say, no one of ordinary skill in the art could have predicted that with applicants' class of catalysts, elimination of the catalyst before hydrogenation and particularly with the use of no free radical inhibitors could have resulted in the increased yields obtained by applicants.

It should be emphasized that the record in this case is significantly different than was before the BPAI in the previous appeal, both in the wording of the claims and the evidence of record. Thus, to whatever extent that decision was correct on that record, it would no longer be correct when applied to the present record.

In light of the foregoing remarks and attached declaration, it is believed that the rejection of record has been obviated, and allowance of this application is respectfully requested.

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Respectfully submitted,  
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